CITRONIC®

Professional Power Amplifier

Owner's Manual

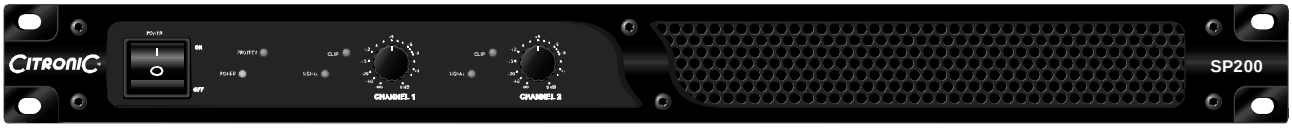
SP Series

Professional Power Amplifier

Before attempting to connect, operate or adjust this product, please read these instructions completely.

Rev: 2.0-CITRONIC-SP 11/2010

SP Series
PROFESSIONAL POWER AMPLIFIER



Congratulations on your choice of stereo power amplifiers — you have purchased one of the finest stereo amplifiers on the market today. This unit was developed using the expertise of professional sound engineers and working musicians. You will find that your new **SP Series** has superior performance and greater flexibility than any other amplifiers in its price range. Please read this manual carefully to get the most out of your new unit.

Thanks for selecting **SP Series** as your choice in stereo power amplifiers.

FEATURES

Offering top power, superior performance and full professional operating features in a roadworthy compact chassis, the **SP Series** Bold Type are perfect for even the most demanding sound reinforcement installation and touring applications.

The operating instruction in this manual are for the **SP Series** power amplifiers. The operation and functions of these units are the same, except as noted.

- Full operating features: detent volume controls ;replace with text 1/4" TRS jack balanced inputs speak on out
- Full safety/reliability features: 2 variable speed fans for cooling; noise-free on-off; DC and thermal overload protection; short circuit and speaker protection;
- Power ON, Clip, Signal, and Protect LED indicators for each channel
- Roadworthy, rugged double rack space (1U) housing
- ~115V AC 60Hz, ~230V AC 50Hz select switch and IEC

TABLE OF CONTENTS

FEATURES 3

WARNING 4

FRONT & REAR PANEL CONNECTIONS 5

INSTALLATION 6

SPECIFICATIONS 7

Date of Purchase _____

Dealer'sName _____

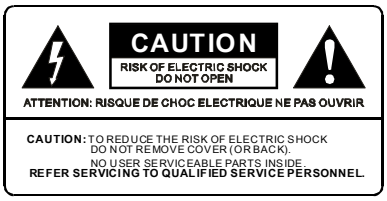
City _____

State _____ **Zip** _____

Model # _____

Serial # _____

WARNING


CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN
ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR
CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK
DO NOT REMOVE COVER (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

An equilateral triangle enclosing a lightening flash/arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product s enclosure which may be of sufficient magnitude to constitute a risk of electric shock.

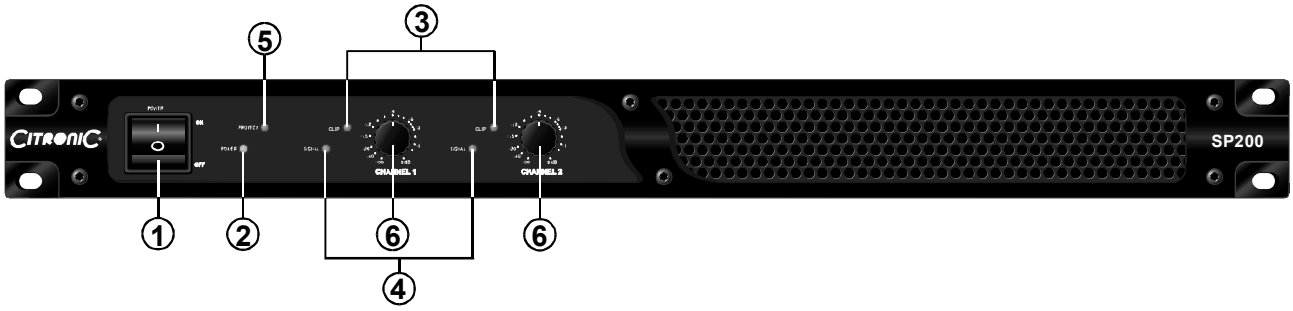
An equilateral triangle enclosing an exclamation point is intended to alert the user to the presence of important operating and service instructions in the literature enclosed with this unit.

IMPORTANT SAFETY INSTRUCTIONS

When using this electronic device, basic precautions should always be taken, including the following:

1. Read all instructions before using the product.
2. Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, etc.).
3. This product should be used only with a cart or stand that will keep it level and stable and prevent wobbling.
4. This product, in combination with headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be positioned so that proper ventilation is maintained.
6. The product should be located away from heat sources such as radiators, heat vents, or other devices (including amplifiers) that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product. Replace the fuse only with one of the specified type, size, and correct rating.
8. The power supply cord should: (1) be undamaged, (2) never share an outlet or extension cord with other devices so that the outlet's or extension cord's power rating is exceeded, and (3) never be left plugged into the outlet when not being used for a long period of time.
9. Care should be taken so that objects do not fall into, and liquids are not spilled through, the enclosure's openings.
10. The product should be serviced by qualified service personnel if:
    A. The power supply cord or the plug has been damaged.
    B. Objects have fallen into, or liquid has been spilled onto the product.
    C. The product has been exposed to rain.
    D. The product does not appear to operate normally or exhibits a marked change in performance.
    E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond what is described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

FRONT & REAR CONNECTIONS



FRONT PANEL

1. POWER SWITCH

To turn the unit ON or OFF, press the Left or Right portion of this button. Before turning on the amplifier, check all connections and turn down the level controls. A momentary muting is normal when turning the amplifier on or off.
(Caution: Always turn on your power amplifier last, after all your other connected equipment, and always turn off your power amplifier before your other connected equipment.)

2. POWER LED INDICATORS

These LEDs illuminate when the power is turned "ON".

3. LIMIT LED INDICATORS

These LEDs illuminate if any section of the power amplifier's output are within 3dB of clipping. Occasional blinking of the LEDs are acceptable, but if they remain on more than intermittently you should turn down either the power amplifier s level controls or reduce the output level of the preceding component to avoid audible distortion.

4. SIGNAL LED INDICATORS

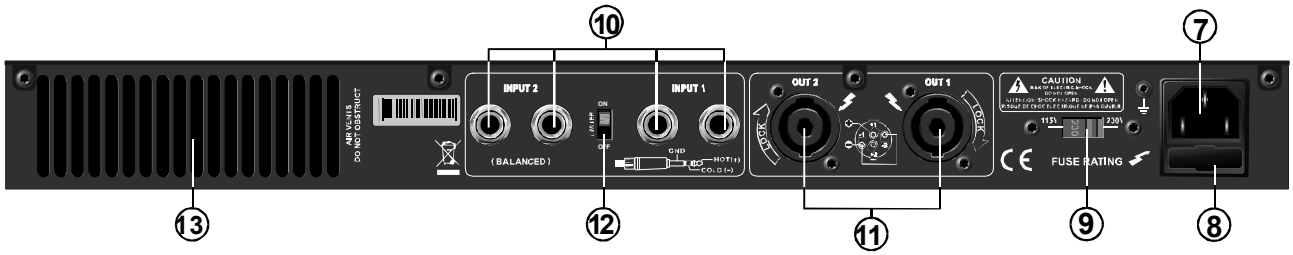
These LEDs illuminate to confirm the presence of an input signal greater than 100 mV at that channel of the amplifier

5. PROTECT LED INDICATORS

These LEDs illuminate if the power amplifier s output connection is shorted or the load impedance is too low. When either of these LEDs is lit up, turn OFF the power and check the output's connection to verify that it is correct, then turn ON the power again.

6. LEVEL CONTROLS

These control the level of signal coming into each channel. The actual voltage gain of the amplifier is shown in dB. Turn these controls counterclockwise if the peak LEDs illuminate steadily (indicating too strong an input signal).



BACK PANEL

7. POWER CONNECTOR

The cord connector is used to connect the AC power source to your power amplifier.
(CAUTION: DO NOT REMOVE THE CENTER GROUNDING PIN.)

8. FUSES

Fuse holders . If these fuses continuously blow, shut off the unit and have it serviced by qualified service personnel.

9. AC VOLTAGE SELECTOR SWITCH

Before plugging in the power cord, check to see that the unit is set for the proper voltage for your area:~115V(60Hz)or ~230V(50Hz).

10. INPUT CONNECTORS

Connect your input signal to these balanced 1/4"TRS input jacks.

11.L/R CHANNEL OUTPUT CONNECTORS

Connect to your speaker box.

12.BUILTIU LIMITER ON/OFF SELECTOR

13. FANS

The fan speed is varied continuously and automatically to maintain the proper internal operating temperature.

INSTALLATION

To ensure years of enjoyment from your **SP Series**, please read and understand this manual thoroughly before using the unit.

INSPECTION

Your **SP Series** was carefully packed at the factory in packaging designed to protect the units in shipment. Before installing and using your unit, carefully examine the packaging and all contents for any signs of physical damage that may have occurred in transit.

*(Note: **SP Series** is not responsible for shipping damage. Remove If the unit is damaged, do not return to us, but notify your dealer and the shipping company immediately to make a claim. Such claims must be made by the consignee in a timely manner.)*

CONTENTS

- Instruction manual
- **SP Series** (verify that the unit's serial number is same as shown on shipping carton)
- AC Power cord

RACK MOUNTING

The **SP Series** amplifiers are designed for standard 19" rack mounting as well as "stack" mounting without a cabinet. Use 4 screws and washers for mounting to the front rack rails. It is also a good idea to support the amps also in the rear, especially for mobile use where the amps will be subjected to shocks.

AMPLIFIER COOLING

Also pay close attention to the cooling requirements. Never block the air vents in the back, side and front of the amplifier if the load seen by amplifier is less than 4 ohms and the amplifier is being run at high output levels. For best results, in such high output power applications you should augment the amplifier's air flow with a rack cooling system.

SPECIFICATIONS

POWER SPECIFICATIONS	SP200	SP400
STEREO INTO (4Ω)	100W	200W
STEREO INTO (8Ω)	70W	130W

POWER SPECIFICATIONS	SP200	SP400
INPUT SENSITIVITY	0.77V	
INPUT IMPENDANCE	10kΩ balanced	
FREQUENCY RESPONSE (at 10db below rated output power)	25Hz~25KHz +0/-1dB -3dB points:5Hz~50KHz	
DISTORTION (SMPTE-1M)	<0.03%	
S/N RATIO	100dB	

GENERAL SPECIFICATIONS	SP200	SP400
PROTECTIONS	Full short circuit, open circuit, thermal, Ultrasonic, and RF Protection; stable into reactive or mismatched loads; ON/OFF muting; current limiter	
CONTROLS	Front: Power switch, 41 detent input level control for each channel.	
INDICATORS	SIGNAL: 2 x green LED LIMIT: 2 x red LED POWER: 1 x blue LED PROTECT: 1x red LED	
CONNECTORS	POWER: IEC power cord	
	INPUT: 1/ 4" (6.3mm)TRS OUTPUT: SPEAKON	
POWER SUPPLY	Voltage selectable: 115V AC 60Hz 230V AC 50Hz	
FUSES (250V)	AC115V:T4A/250V AC230V:T2A/250V	AC115V:T6.3A/250V AC230V:T3.15A/250V
DIMENSIONS	19.0" x 12.6" x1.73" (482 x 320 x 45mm)	
WEIGHT (kg)	8.0Kg	8.3Kg

The specifications above are correct at the time of printing of this manual. For improvement purposes, all specifications for this unit, including design and apperance, are subject to change without prior notice.